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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,803	06/11/2001	Hiroji Aga	109725	2312

25944 7590 05/10/2004

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EXAMINER	
ESTRADA, MICHELLE	
ART UNIT	**PAPER NUMBER**
2823	

DATE MAILED: 05/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No.	Applicant(s)	
	09/857,803	AGA ET AL.	
	Examiner	Art Unit	
	Michelle Estrada	2823	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 16 April 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2. ☐ The proposed amendment(s) will not be entered because:

   (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);

   (b) ☐ they raise the issue of new matter (see Note below);

   (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.

4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5. ☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: *See Continuation Sheet*.

6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7. ☒ For purposes of Appeal, the proposed amendment(s) a)☐ will not be entered or b)☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: *none*.

   Claim(s) objected to: *none*.

   Claim(s) rejected: *1-5*.

   Claim(s) withdrawn from consideration: *6-9*.

8. ☐ The drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.

9. ☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.

10. ☐ Other: _____

George Fourson
Primary Examiner

Continuation of 5. does NOT place the application in condition for allowance because: Applicant argues having unexpected results finding that an SOI wafer having inproved surface roughness, uniform SOI layer thickness and being substantially free from COP-induced pits can be achieved by the method of claim 1. However, Applicant must provide objective evidence showing the unexpected results.

Applicant argues having unexpected results discovering that if a wafer having an SOI layer is subjected to a heat treatment consisting of two stages utilizing separately a rapid heating/rapid cooling apparatus and a batch processing type furnace after the delamination, surfac srytallinity is restored and the surface roughness of both the short period and the long period improved. However, Applicant must provide objective evidence showing the unexpected results.

Applicant argues that Yamamoto does not teach utilizing both a rapid heating/rapid cooling apparatus and a batch processing type furnac to improve both short periods and long periods of the SOI layer. However, Yamamoto is applied in a 35 USC 103 rejection, and does not need to disclose all the limitations of the claim.

Applicant argues that Sato does not teach utilizing both a rapid heating/rapid cooling apparatus and a batch processing type furnace to improve both short periods and long periods of the SOI layer. However, Sato is applied in a 35 USC 103 rejection, and does not need to disclose all the limitations of the claim.

Applicant argues that there is no motivation to selectively combine the heat treatments of Yamamoto and Sato. However, motivation was provided in the Office Action mailed 1/16/04. Furthermore, disclosure of each method being suitable for the entire process is disclosure o each method being suitable for all portions of the process including a first portion and a second portion. In this case, both RTA and furnace annealing are disclosed to be suitable for all portions of the annealing step which suggest empolying RTA for the first portion and furnace annealing for the second portion. Furthermore, the claims do not require any particular proportion of the annealing step to be accomplished by either RTA or furnace annealing. It would have been within the scope of one of ordinary skill in the art to employ RTA o furnace annealing for almost the entire process and to employ the other for a portion of the process that is insufficiently long to be expected to substantially alter the annealing step.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must b recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See In re McLaughlin, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).